

SHOOTER'S REST

BACKGROUND OF THE INVENTION

[0001] This invention relates to an apparatus for supporting a firearm and, more particularly, a shooting rest having a plurality of forks, at least one or more of which may telescope, and a plurality of supports for providing improved stability during shooting.

[0002] In bench rest target shooting, rifle rests are used to support a rifle during a competition. An example of one of these rests has a base with three legs, the end of each leg resting on the upper surface of the bench. The fore end of the rifle is supported by a cradle that is connected by a screw mechanism to the base, while the rear end of the rifle is supported by a sand bag. Since the target and bench supporting the rifle rest is stationery, the shooter has ample time to adjust the rifle to proper position for very accurate shooting. Several apparatuses and methods for supporting firearms are illustrated in the U.S. Patent Nos. 5,644,862; D471,248; 6,526,687; 6,338,218; 6,293,041; 5,933,999; 5,875,580; Des 387,123; 5,666,757; 5,644,862; 5,497,557; Des. 369,904; Des. 364,080; Des. 362,116; Des 359,392; 5,414,949; 5,402,595; 5,332,185; 5,067,268; 5,070,636; 5,058,302; 5,050,330; 4,998,944; 4,987,694; 4,967,497; 5,271,175; 5,149,900; 4,998,944; 4,971,208; 4,937,965; 4,823,673; 4,807,381; 4,776,471; Des. 257,687; 4,007,554; 4,873,777; 4,815,593; 4,702,029; 4,449,314; 3,964,613; 3,947,988; 3,913,746; 3,913,746; 3,608,225; 3,291,317; 2,877,689; 2,774,563; 2,740,530; 2,121,982; 5,640,944; 5,482,241; 5,370,240; 5,125,389; 3,584,820; 3,055,655; and 4,702,029. All of these patents are incorporated herein by reference and made a part hereof.

[0003] Note in the U.S. Patent 6,338,218B1, an apparatus for supporting a firearm in a shooting position is shown. The apparatus has a base and a mounting member. The firearms support mechanism supports the firearm in a position above the mounting member. A connecting mechanism interconnects the mounting member and the base. U.S. Design Patent D471,248 shows a device having three points of support.

BRIEF SUMMARY OF THE INVENTION

[0004] In accordance with one aspect of the invention, there is provided an apparatus for supporting a firearm in a shooting position. The apparatus has a base, the primary components of which are molded.

[0005] In one aspect of the invention, the invention comprises a firearm support apparatus having a plurality of supports for engaging a surface and which cooperate with a plurality of supports on a rear portion of the shooting rest. The supports cooperate to provide a stable gun rest that reduces or eliminates the need for additional stability objects, such as sand bags, clamps and the like.

[0006] In another aspect, this invention comprises a gun rest comprising a front base comprising a front fork and a plurality of supports separated by a first support distance; and a rear base comprising a rear fork and a second plurality of supports separated by a second support distance, the second support distance being less than the first support distance.

[0007] In still another aspect, this invention comprises a gun rest comprising a support having a first base having a first fork and further comprising a first plurality of supports and a second base having a second fork and further comprising a second

plurality of supports, the first and second plurality of supports being arranged to define a trapezoid and the support being molded from a polymer.

[0008] In yet another aspect, this invention comprises a method for supporting a gun comprising the steps of pivoting a first support relative to a second support in response to a surface on which the first and second supports are situated and clamping the first and second supports together.

[0009] These and other objects and advantages of the invention will be apparent from the following description, the accompanying drawings and the appended claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] Fig. 1 is a perspective view of one embodiment of the invention;

[0011] Fig. 2 is a side view of the embodiment shown in Fig. 1, illustrating the device used as a rifle rest;

[0012] Fig. 3 is a fragmentary view illustrating the device as it may be used with a handgun;

[0013] Fig. 4 is an exploded view illustrating various features of the invention;

[0014] Fig. 5 is a plan view illustrating a handle for carrying the rest; and

[0015] Fig. 6 is a bottom view of the embodiment shown in Fig. 1.

DETAILED DESCRIPTION OF THE INVENTION

[0016] Referring now to Figs. 1 and 4, a shooting rest 10 in accordance with one embodiment of the invention will now be described. Fig. 1 illustrates the shooting rest 10 in assembled view, while Fig. 4 illustrates the shooting rest in an exploded

view. The shooting rest 10 has a front base 12 which is molded in a one-piece construction of a polymer or plastic. The base 12 has a fork having a threaded shaft 16.

[0017] The base 12 comprises a tubular member 20 having a threaded opening 22 for threadably receiving a bolt 24. A nut 26 is received on the threaded shaft 16 and provides means for raising and lowering the fork 18. The fork 18 provides a barrel rest for a rifle or a handgun as illustrated in Figs. 2 and 3. Note that the threaded shaft 16 has a channel 28 that receives and cooperates with the threaded screw 24 so that, as the nut 26 is rotated to cause the fork 18 to raise or lower, an end 24a of threaded screw 24 prevents the shaft 16 from rotating, thereby enabling the fork 18 to raise and lower as the nut 26 is rotated in either a counter-clockwise or clockwise direction. If desired, once the fork 18 is situated at the desired height, the screw 24 can be tightened all the way into engagement against the shaft 16 to lock the shaft 16 into position. Although not shown, the rifle supporting member 19 may be comprised of a rubber coating or material 19 that is adhered to the base 21 in order to protect the stock 32 or barrel 30 of rifle 34 (Fig. 2).

[0018] As illustrated in Fig. 4, the shooter's rest 10 also comprises a rear support 36 having a stock support 38 comprised of a rubber coating or other polymer material and adhered to the rear support 36. Note that the support 36 comprises a tubular member 40 that is received in an aperture 42 which is defined by a first shaft support 44, which is molded into the front support 12, and a second support or clamp 46. The second support or clamp 46 has a pair of threaded apertures 50 receiving screws 52 in order to clamp onto the tubular member 40 the rear support 36 to the front support 12 after the rear support 36 is telescoped to the desired position. This is

accomplished by simply tightening the screws 52 until the inner surface 46c of the shaft support 46 engages the shaft 40. Note that the tubular member 40 permits the front support 12 to lie in a different plane than the rear support 36 because the supports 12 and 36 can be pivoted or rotated about axis A before the screws 50 are tightened to cause clamp 46 to clamp the tubular member 40. This enables the rest 10 to provide stable support on uneven surfaces.

[0019] After the components are assembled and the various screws 24, 26 and 50 are tightened, the supports 18 and 36 become locked together to provide a shooting rest for a rifle as illustrated in Figs. 1, 2, 5 and 6. If it is desired to use the shooting rest 10 as a handgun rest, then the support 36 may be removed and the device used in the manner illustrated in Fig. 3. Note that the shooter rest 10 comprises a planar area 54 for receiving and supporting a butt end 56 of a handgun 58, as best illustrated in Fig. 3.

[0020] As illustrated in Fig. 6, the shooter rest 10 comprises a plurality of support pads 60, 62, 64 and 66 which provide improvements and stability over the prior art. Note that the pads 60 – 66 cooperate to define a trapezoid area as shown in Fig. 5. Note in this regard that a distance SW2 between the rear supports is narrower than the front support SW1 as shown in Fig. 6. In the embodiment being described, the distance SW1 is on the order of about 18 inches while the support with SW2 is on the order of about 5.6 inches. Thus, in the embodiment being described, the support pads 60 and 62 have a wider separation than the pads 64 and 66 as shown. It has been found that provided more than three supports improves the overall stability toward the rear of the shooting rest provides greater stability, without the need for separate clamps, sand bags and the like. The overall weight of the rest 10 is less

than about 5 pounds, and the overall length of the rest 10 is about 25.9 inches fully-telescoped. The length of the rest 10 is on the order of about 22 inches when in a non-telescoped position.

[0021] As further illustrated in Figs. 5 and 6, note that the shooter rest 10 further comprises a handle 70 which is molded into the support member 12 as shown. The molded handle 70 makes it convenient to carry.

[0022] Advantageously, this shooter's rest improves over the systems of the prior art by providing a stable rest having a plurality of supports at least two of which are distributed across a front fork in a direction generally perpendicular to an axis A (Fig. 5) of the shooter's rest 10. Providing a plurality of contacts 60 – 66 on the support 12 and the support 36 has been found to improve the stability of the device during shooting.

[0023] Advantageously, this system also provides a shooter's rest molded from a plastic or polymer material which is light-weight and does not require other means for stabilizing the device once it is situated on a surface, such as clamps, sand bags or the like.

[0024] While the apparatus described herein, constitutes preferred embodiments of this invention, it is to be understood that the invention is not limited to this precise form of apparatus, and that changes may be made in either without departing from the scope of the inventions, which is defined in the appended claims.

[0025] What is claimed is: